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NOTES ON THE EARLY HISTORY OF
DIPHTHERIA
IN THE UNITED STATES.

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BY the kindness of Dr. S. S. Purple, President of the New York Academy of Medicine, I have had access to the letter of Dr. Cadwallader Colden, of New York, to Dr. Fothergill, and to the paper of Dr. Samuel Bard, on Diphtheria.

Both of these gentlemen refer to Dr. Douglass, of Boston, who described the disease in 1735.

Dr. Douglass records the appearance of the "*throat distemper*" at Kingston, an inland town of New England, about the year 1735. Dr. Colden says it spread from thence, and moved gradually westward, so that it did not reach the Hudson river till near two years afterward. It continued sometime on the east side of the river, before it passed to the west, and appeared first in those places to which the people of New England chiefly resorted for trade, and in places through which they travelled.

It continued to move westerly, till it probably spread over all the British Colonies on the continent.

Dr. Colden, continues: "Though what I have mentioned seems

evidently to show that the disease was propagated by infection, yet children and young people were only subject to it, with the exceptions of some people above 20 or 30 years old, and a very few aged people who died of it.

"Neither did it spread equally to all places that were proportionately exposed to the infection. The poorer sort of people were more liable to it, and they who lived on low and wet grounds and on a poor scorbutic diet. In some places only a few persons or families were seized; while in others, all escaped. In some families it passed like a plague through all their children; in others, only one or two were seized. Some were attacked at such a distance from the infected, that it could not be conceived in what manner they received infection. Some families had the disease mildly, while others in the same place and at the same time had it most violently.

"For the last 14 years it has frequently broken out in different families and places, without any previous observable cause; but does not spread as it did at first. Sometimes a few only have it in a considerable neighborhood. It seems as if some seeds, or leaven, or secret cause remains, wherever it goes; for I hear of like observations in other parts of the country. *Several have been observed to have had it, more than once.*

"Nausea, or vomiting is seldom observed to accompany it. The skin is seldom parched. The pulse is usually low, but frequent and irregular. No considerable thirst. The tongue is much furred, and the furring sometimes extends *all over the tonsils*, as far as the eye can reach. At other times, in the milder kind, the tonsils appear only swelled and dotted *with white specks* of about $\frac{1}{4}$ or $\frac{1}{2}$ inch in diameter, which are thrown off from time to time, in tough, cream-colored sloughs; but these are soon again renewed. Sometimes the throat is swelled inwardly and outwardly, so as to endanger suffocation.

"In some seasons it has been accompanied with miliary eruptions all over the skin; and at such times the symptoms about the throat have been mild, and the disease generally without danger." (*Scarlatinous diphtheria.*)

"Some have had sores with corrosive humors behind their ears, on the private and other parts of the body." (*Cutaneous diphtheria.*)

"The last complaint commonly is of an oppression or straitness in the upper part of the chest, with difficulty of breathing, and a

deep hollow, hoarse cough, ending in a livid strangled-like countenance which is soon followed by death." (*Croupous diphtheria.*)

"This disease is not often attended with that loss of strength that is usual in Scarlet and other fevers. So that many have not been confined to their beds; but have walked about the room, till within an hour or two of their death. And the complaint has often appeared no way dangerous, at first, to the attendants, till the sick were almost in the last agonies; though the patients themselves are generally dejected and apprehensive. Some died on the 4th or 5th day; and others not till the 14th or 15th; some even later. Sometimes nature was not able to raise a fever for the expulsion of the disorder, and the sick generally died suddenly, without a sensible struggle.

"When the surfaces of the tonsils, after the sloughs were cast off, appeared of a very fiery-red-color there was some, or even great danger; but when they were covered with a black crust it was often a fatal omen; as also when hemorrhages followed any slight scratch.

"When the disease first appeared, it was treated in the usual way, (with bleeding, blistering and purgatives?) for a common angina, and no plague was more destructive. In many families, who had a great many children, all died; and generally, when the sick fell into the hands of physicians not acquainted with the peculiar malignity of the disease the result was not favorable. Depressing and evacuating measures, after the disease had continued sometime, were destructive. The orifices made by the lancet in bleeding, and the adjacent parts were apt to become diseased. So likewise the places where blisters were applied. The ichor which issued from them corroded the parts upon which it flowed, and even slight scratches became as it were mortified. A bloody ichor continued to issue from the body long after death.

"Cold air was apt to produce relapses; and Peruvian Bark was useless, but gentle perspiration produced by warm sage, and other teas, or with serpentaria, as an antiseptic diaphoretic, was found useful; and if the disease was taken early enough it went through its course mildly, and seldom any of the more terrible symptoms appeared. *Serpentaria* was even found beneficial after serious and bad symptoms had appeared, and some recovered who seemed beyond hope.

"The presence of a miliary eruption was found very salutary in this disease; and when absent, calomel, especially when joined with

camphor, was useful. The common gargle used was a decoction of sumach berries, with serpentaria, and a little alum dissolved in it. It was thought proper always to gargle the throat before swallowing anything, (in order not to wash any of the infection down into the stomach?) The sores on the tonsils were frequently touched with the compound tincture of aloes and honey; when the throat was much swelled fomentations were used with decoctions of aromatic and other herbs, in which sal ammoniac, borax, or common salt was dissolved, with the addition of sharp vinegar.

"A girl about 10 years of age, while the throat distemper was prevailing, had sores on her private parts like those on the tonsils of others; but no symptom of the disorder appeared in her throat. The ichor which issued from these sores dried up at times, and then she was seized with violent pains in her belly. She was cured with serpentaria and the common diaphoretic medication; being careful, as in all other cases, not to produce profuse sweating, as this was found as prejudicial as any other sensible, or exhausting evacuation."

Dr. Colden seemed to think that the disease was seated in the epithelium, connective tissue, lymph-spaces and lymphatics, and that the capillaries and blood-vessels and their contents became secondarily affected; and that blood-letting and evacuants could not reach the sources of the disorder which lay in the cellular, inter-cellular and lymph-circulations.

From this most interesting letter it seems certain that diphtheria prevailed widely in the New England States and New York, from 1735, when recognized by Dr. Douglass, of Boston, till 1753, when described as above by Dr. Colden in a letter to Dr. Fothergill, printed in Vol 1st of the London Medical Observations and Inquiries, pp. 211 to 225.

It also seems evident that mild scarlatina prevailed at the same time and was regarded as far less formidable than the so-called *throat distemper*, or Diphtheria. For the cases "accompanied with miliary eruptions all over the skin, as happened in some seasons" only, were considered as "generally without danger, if not ill treated."

It is not absolutely certain that any distinction was made between the diphtheritic throat distemper and scarlatina maligna, although it appears equally undeniable that eruptions were generally absent; and that the malignancy of the disorder was in some measure attributed to the non appearance of the skin affection.

In scarlatina maligna the eruption is dusky and readily noticed.

In scarlatina without eruption there is generally some pre-existing or co-existing disease, generally entero-colitis, with severe vomiting or purging; or nephritis, with albuminuria, followed by dropsy. No mention is made of dropsy as a sequel of the Bard or Colden throat distemper, so that it was doubtless true Diphtheria; although paralysis also is not mentioned.

Again, the occurrence of diphtheritic croup is stated to have been common; while croup is rare after, or with scarlet fever, although Meigs and Pepper report several cases. Bretonneau, Rayer, and Tweedie never met with it. Guersant and Blache occasionally observed it; while although Rilliet and Barthez found false membranes in the larynx in 3 cases, yet they had not been attended with the peculiar symptoms of croup.

On the whole, we may claim positively that a large majority of the cases alluded to by Drs. Bard and Colden, were pure Diphtheria and nothing else. In my next, I will give an abstract of Dr. Samuel Bard's still more important communication made in 1771.

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